

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Previously Presented). A method of processing an audio signal comprising the steps of:

synthesizing a plurality of (M) sound source signals to provide N sound source signals, said number N being smaller than said number M of said sound source signals, based on at least one of position information, movement information and localization information of said M sound source signals;

synthesizing at least one information of position information, movement information and localization information corresponding to said N synthesized sound source signals; and

localizing said N synthesized sound source signals in sound image based on said synthesized at least one information.

Claim 2 (Previously Presented). The method of processing an audio signal according to claim 1, wherein said step of localizing is a virtual sound image localization for obtaining

two-channel reproduced signals supplied to a pair of acoustic transducers to localize a sound image at an arbitrary position around a listener.

Claim 3 (Previously Presented). The method of processing an audio signal according to claim 1, wherein said at least one position information, movement information and localization information of said M sound source signals and/or said synthesized at least one information of position information, movement information and localization information corresponding to said N synthesized sound source signals is changed by a change instruction.

Claim 4 (Previously Presented). The method of processing an audio signal according to claim 3, wherein said change instruction is supplied by a user's operation.

Claim 5 (Previously Presented). The method of processing an audio signal according to claim 3, wherein said change instruction is obtained by detecting a movement of a listener's head.

Claim 6 (Previously Presented). The method of processing an audio signal according to claim 1, further comprising the step of supplying random fluctuations to at least one sound signal of said M sound source signals and/or said synthesized information corresponding to at least one of said N synthesized sound source signals.

Claim 7 (Previously Presented). The method of processing an audio signal according to claim 1, wherein said number (N) of said synthesized sound source signals is two or greater, at least one of said synthesized sound source signals is based on localization information.

Claim 8 (Previously Presented). The method of processing an audio signal according to claim 1, further comprising the steps of changing a video signal in response to changes of reproducing localization positions of said M sound source signals or said N synthesized sound source signals and outputting said video signals.

Claim 9 (Previously Presented). The method of processing an audio signal comprising the steps of:

synthesizing N sound source signals from a plurality of (M) sound source signals, where N is smaller than M;

localizing said synthesized N sound source signals in virtual sound image based on a plurality of previously determined localization positions;

storing a plurality of audio signals, localized in virtual sound image in memory means; and

reading and reproducing said audio signals from said memory means in response to said localization positions of said synthesized sound source signals.

Claim 10 (Previously Presented). The method of processing an audio signal according to claim 9, wherein one of the localization positions of said synthesized N sound source signals is changed by a change instruction.

Claim 11 (Previously Presented). The method of processing an audio signal according to claim 10, wherein said change instruction is supplied by a user's operation.

Claim 12 (Previously Presented). The method of processing an audio signal according to claim 10, wherein said change instruction is obtained by detecting a movement of a listener's head.

Claim 13 (Previously Presented). The method of processing an audio signal according to claim 9, further comprising the step of supplying random fluctuations to said localization positions of said audio signals read out from said memory means.

Claim 14 (Previously Presented). The method of processing an audio signal according to claim 9, wherein said number (N) of said synthesized sound source signals is two or larger, at least one of said synthesized sound source signals is based on localization information.

Claim 15 (Previously Presented). An apparatus for processing an audio signal comprising:

means for synthesizing a plurality of (M) sound source

signals to provide N sound source signals, said number N being smaller than said number M of said sound source signals, based on at least one of position information, movement information and localization information of said M sound source signals;

means for generating synthesized information by synthesizing information corresponding to said synthesized N sound source signals from said information of said M sound source signals; and

signal processing means for localizing in sound image said synthesized N sound source signals based on said synthesized information from said means for generating.

Claim 16 (Previously Presented). The apparatus for processing an audio signal according to claim 15, wherein said localizing in sound image in said signal processing means is a virtual sound image localization for obtaining two-channel reproduced signals supplied to a pair of acoustic transducers to localize a sound image at an arbitrary position around a listener.

Claim 17 (Previously Presented). An apparatus for

processing an audio signal comprising:

means for generating synthesized sound source signals by synthesizing N sound source signals, from a plurality of (M) sound source signals where N is smaller than M;

signal processing means for providing a plurality of sets of reproduced audio signals by localizing said synthesized N sound source signals in virtual sound image based on a plurality of sets of previously determined localization positions;

memory means for storing a plurality of sets of reproduced audio signals obtained by said signal processing means; and

reproducing means for reading and reproducing one of said plurality of sets of reproduced audio signal from said memory means in response to a reproducing localization position of said synthesized sound source signals.

Claim 18 (Previously Presented). The apparatus for processing an audio signal according to claim 17, wherein said localizing in said signal processing means is a virtual sound image localization for obtaining two-channel reproduced

signals supplied to a pair of acoustic transducers to localize a sound image at an arbitrary position around a listener.

Claim 19 (Previously Presented). An apparatus for processing an audio signal comprising a signal processor supplied with synthesized sound source signals resulting from synthesizing a plurality of (M) sound source signals to provide N signals, where N is smaller than M of said sound source signals, based on at least one information of position information, movement information and localization information of said M sound sources and synthesized information synthesized to said synthesized sound source signal of at least one information of corresponding position information, movement information and localization information and for localizing said synthesized sound source signal in sound image based on said synthesized information.

Claim 20 (Previously Presented). The apparatus for processing an audio signal according to claim 19, wherein said sound image localization in said signal processor is a virtual sound image localization for obtaining two-channel



reproduced signals supplied to a pair of acoustic transducers to localize a sound image at an arbitrary position around a listener.

Claim 21. (Amended) An apparatus for processing an audio signal comprising:

means supplied with a plurality of sets of reproduced audio signals resulting from localizing virtual sound images of synthesized sound source signals synthesized to N signals from a plurality of (M) sound source signals, the number N being smaller than the number M of said sound source signals, based on a plurality of sets of previously determined localization positions; and

means for selecting and reproducing one set of reproduced audio signals from said plurality of sets of reproduced audio signals in response to reproduced localization positions of said synthesized N sound source signals.

Claim 22 (Previously Presented). A recording medium in which there are recorded synthesized sound source signals in which a plurality of (M) sound source signals are synthesized

to N signals, where N is smaller than the number (M) of said sound source signals, based on at least one information of position information, movement information and localization information of said sound source and synthesized information synthesized as at least one information of position information, movement information and localization information corresponding to said synthesized sound source signals in association with each other.

Claim 23 (Previously Presented). The recording medium according to claim 22, wherein said synthesized sound source signals are two-channel reproduced signals supplied to a pair of acoustic transducers and thereby sound images are localized at reproduced localization positions around a listener.